Special Issue

Microplastics and Nanoplastics Toxicology and Detection in Biological Matter

Message from the Guest Editors

The ubiquitous presence of microplastics and nanoplastics in environmental and biological systems has emerged as one of the most pressing challenges in contemporary toxicology and environmental health. Polymer fragments, ranging from nanometers to millimeters in size, have been detected across diverse biological matrices, from marine organisms to human tissues, raising critical questions about their long-term health implications.This Special Issue invites cutting-edge research addressing the complex interplay between plastic particle exposure, bioaccumulation, the impact of ageing and degradation, and toxicological effects in living systems. Topics of particular interest include novel detection and quantification methods, interactions at the cell-level, tissue-specific accumulation patterns, inflammatory and oxidative stress responses, endocrine disruption mechanisms, and standardized protocols for biological sample analysis. Interdisciplinary contributions bridging environmental science, toxicology, analytical chemistry, and public health are especially encouraged.

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Deadline for manuscript submissions

20 August 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/246185

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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